

WHAT IS CLAIMED IS:

1. A high frequency device, comprising:

a first filter for extracting signal components in a  
5 predetermined frequency band from an input signal;

a frequency converter for converting a frequency of the  
signal components extracted by the first filter;

a second filter for extracting signal components in a  
predetermined frequency band from the signal components with  
10 a frequency thereof converted by the frequency converter;

a bypass circuit for detouring the second filter  
downstream of the first filter;

a switching mechanism including a switching circuit for  
switching connection of a signal path downstream of the first  
15 filter to either the second filter or the bypass circuit.

2. The high frequency device according to claim 1, wherein  
the switching mechanism includes, downstream of the second  
filter, a switching circuit for switching the signal path.

20

3. The high frequency device according to claim 2, wherein  
the frequency converter includes a first frequency converter  
provided upstream of the second filter and a second frequency  
converter provided to the bypass circuit.

25

4. The high frequency device according to claim 3, wherein  
the frequency converter variably controls a frequency changing

amount according to a frequency of a signal input to the frequency converter so that signals having a constant frequency are output.

5 5. The high frequency device according to claim 3, wherein the bypass circuit is biased via a resistor so as to have a source power potential.

6. The high frequency device according to claim 3, wherein  
10 the second filter is formed as a unit separate from an integrated circuit which includes the frequency converter and the switching circuit.

7. The high frequency device according to claim 1, wherein  
15 the switching mechanism includes switching circuits provided upstream and downstream of the second filter, respectively, for switching the signal path.

8. The high frequency device according to claim 7, wherein  
20 the frequency converter includes a first frequency converter provided upstream of the second filter and a second frequency converter provided to the bypass circuit.

9. The high frequency device according to claim 8, wherein  
25 the frequency converter variably controls a frequency changing amount according to a frequency of a signal input to the frequency converter so that signals having a constant

frequency are output.

10. The high frequency device according to claim 8, wherein  
the bypass circuit is biased via a resistor so as to have a  
5 source power potential.

11. The high frequency device according to claim 8, wherein  
the second filter is formed as a unit separate from an  
integrated circuit which includes the frequency converter and  
10 the switching circuit.

12. The high frequency device according to claim 7, wherein  
the frequency converter is provided upstream of the switching  
circuit provided upstream of the second filter.

15

13. The high frequency device according to claim 12, wherein  
the frequency converter variably controls a frequency changing  
amount according to a frequency of a signal input to the  
frequency converter so that signals having a constant  
20 frequency are output.

14. The high frequency device according to claim 12, wherein  
the bypass circuit is biased via a resistor so as to have a  
source power potential.

25

15. The high frequency device according to claim 12, wherein  
the second filter is formed as a unit separate from an

integrated circuit which includes the frequency converter and the switching circuit.

16. A tuner high frequency device, comprising:

5 a first filter for extracting signal components in a predetermined frequency band from an input signal having a radio frequency;

a frequency converter for converting a frequency of the signal components extracted by the first filter to thereby  
10 obtain an IF signal, in which a frequency changing amount is variably controlled according to a frequency of a signal input from an RF-stage section so that IF signals having a constant frequency are obtained;

a second filter for extracting signal components in a  
15 predetermined frequency band from the IF signal obtained by the frequency converter;

a bypass circuit for detouring the second filter downstream of the first filter;

a switching mechanism including a switching circuit for  
20 switching connection of a signal path downstream of the first filter to either the second filter or the bypass circuit.

17. An integrated circuit, comprising:

a frequency converter for converting frequency of signal  
25 components extracted using a first filter which extracts signal components in a predetermined frequency band from an input signal;

a bypass circuit provided downstream of the first filter,  
for detouring a second filter which extracts signal  
components in a predetermined frequency band from the signal  
components with a frequency thereof converted by the frequency  
5 converter; and

a switching mechanism including a switching circuit for  
switching connection of a signal path downstream of the first  
filter to either the second filter or the bypass circuit.

10 18. The integrated circuit according to claim 17, further  
comprising a terminal for connecting the second filter, the  
second filter being formed as a unit separate from the  
integrated circuit.

15 19. The integrated circuit according to claim 17, further  
comprising an external connection terminal via which to input  
a control circuit for controlling the switching by the  
switching circuit.